

CROCKER LTD

Statement of Qualifications



2019 Galisteo Street, Suite N-10 A ■ Santa Fe, New Mexico 87505
505.982.2448 ■ Fax 505.995.9877 ■ info@crockerltd.net ■ www.crockerltd.net

CROCKER LTD

Architectural Conservation

Crocker Ltd is a general contractor specializing in the restoration of earthen buildings and the structural stabilization of all building types. We are accustomed to working within the strictest of preservation standards, though we are able to adapt our approach to the specific needs of each client.

Particularly with a historic building, our approach is to see each structure not as a set of separate elements (foundation, walls, floors, roof), but rather as a building system, the various elements acting together to support the integrity of the whole.

We provide the owners and managers of historic properties with a full range of services. Consulting services include assessments, treatment strategies, analysis of historic fabric, preparation of bid specifications, technical assistance, National and State Register nominations and investment tax credit applications and compliance. Our construction crews have years of experience working with significant historic structures; their on-site expertise in foundation repairs, wall stabilization and masonry repairs, moisture remediation, and historic finishes and plasters is unparalleled.



AWARDS



ST. ANNE CHURCH
at Santa Ana Pueblo



ST. AUGUSTINE
CHURCH at Isleta Pueblo



FORT STANTON



HUBBELL HOUSE



V-SITE PROJECT



ZUNI PUEBLO



ZUNI PUEBLO



HISTORIC NEW
MEXICO CHURCHES

2013: New Mexico **Heritage Preservation Award for Architectural Heritage** for the restoration of the St. Anne church at Santa Ana de Tamayá.

2012: New Mexico **Heritage Preservation Award for Architectural Heritage** for the restoration of the St. Augustine church at Isleta Pueblo.

2010: New Mexico **Heritage Preservation Award for Architectural Heritage** for the restoration of the Administration/Museum building at Fort Stanton.

2009: National Trust for Historic Preservation, **National Preservation Honor Award** for the Gutiérrez-Hubbell House Restoration.

2008: New Mexico **Heritage Preservation Award for Architectural Heritage**, *Remarkable Rehabilitation of the Hubbell House*.

2008: National Trust/Advisory Council on Historic Preservation **Award for Federal Partnerships in Historic Preservation** for the V-Site Restoration Project.

2007: New Mexico **Heritage Preservation Award for Architectural Heritage**, *Exemplary Restoration of the V-Site of the Manhattan Project*.

2003: **Old Santa Fe Association Award** for Significant Contributions to the Historic Preservation of the City of Santa Fe.

2000: City of Santa Fe **Heritage Preservation Award** for Preservation of the Unique Historic Character of Santa Fe.

2000: Edward Crocker honored with the **New Mexico Heritage Preservation Award** for Outstanding Contributions in the Field of Historic Preservation.

1998: AIA Architectural Research Citation for “Cultural Form and Process in Building at the Zuni Pueblo, NM” (with Tony Atkin, FAIA).

1998: New Mexico Historic Preservation Division, **Outstanding Preservation Project Award** for the restoration of the Hapadina Building at Zuni Pueblo (with Cornerstones Community Partnerships).

1997: National Trust for Historic Preservation, **National Preservation Honor Award** for establishing training programs in stone masonry (with Zuni Pueblo).

1997: United States Department of Housing and Urban Development, **Building Innovation in Home Ownership Award** for Casas de Escudero.

1994: National Trust for Historic Preservation, **National Preservation Honor Award** for Preservation of Historic New Mexico Churches (with Cornerstones Community Partnerships).

Structural Stabilization

Subsiding foundations, slumping walls, and collapsing roofs provide some of the greatest challenges to historic properties. Left unaddressed, these pathologies can lead to further property damage, electrical and mechanical system failure, and even catastrophic collapse. Crocker Ltd uses a variety of innovative techniques to design site-appropriate stabilization plans that are affordable and reversible.

HELICAL PIERS

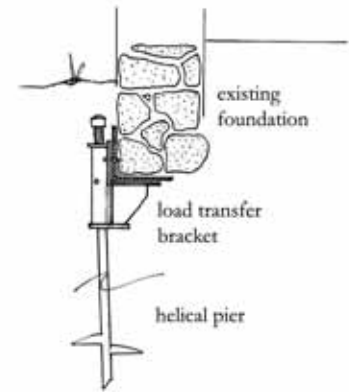
Crocker Ltd is a certified installer for A.B. Chance helical piers, steel shafts rotated into the earth to stabilize a building foundation.



Helical pier installation, Hubbell Trading Post National Historic Site.



Piers installed at the base of a masonry wall.



WALL CAGES

Steel cages stabilize coved or saturated wall bases, avoiding the need for a much more costly intervention. The cages can be incorporated into the fabric of the wall and provide ongoing structural strength for the life of the building.



A lime-rich mud is cast onto the damaged adobe wall.



Installation of cages, historic Seco Plaza Complex, Arroyo Seco.



Cages supporting a failing wall at Zia Diner, Santa Fe.

FOUNDATION BASKETS

For buildings failing due to inadequate or no foundation, Crocker Ltd can retrofit a steel and gravel "basket" footing founded on helical piers. Installed section-by-section, these baskets form a foundation at least as strong as a traditional concrete footing.



Baskets are fabricated to size for each application.



Basket in place under a failed wall, historic home, Bernalillo.



Helical pier supports basket at reconstructed adobe wall base.

Specialized Moisture Remediation

Moisture in the subsurface and affecting the base of walls is one of the most common pathologies encountered in earthen buildings. Crocker Ltd, over years of experience, has developed technologies to protect historic structures from moisture intrusion. These drainage systems use commonly found waterproofing materials in creative ways, and stress redundancy as insurance against deterioration caused by moisture.

MATERIALS/TECHNIQUES USED:

Geodrain: Composite material used to capture and draw moisture away from the building.

Continuously slotted PVC: Captures moisture from geodrain and carries it to daylight.

Plaster stop: Keeps water sheeting off a wall, channeled toward the drainage system, rather than getting trapped behind a membrane.

Grading: Soils adjacent to buildings are graded away from the plaster stop to maintain positive drainage.

SELECTED PROJECTS, DRAINAGE SYSTEMS DESIGNED TO SITE:



Hubbell Trading Post National Historic Site, Ganado, AZ.

Chronic flooding in this archeological zone had caused the Guest Hogan to settle. We underpinned the hogan using helical anchors and installed area inlets with drainage pipes carrying water away from the site.



Costilla County Courthouse, San Luis, CO. A high water table directly at the foundation had caused erosion of the adobes in this 1853 courthouse. We installed interceptor drains draining into the town's storm sewers.



Gutiérrez Hubbell House, Albuquerque, NM. This 150-year-old adobe hacienda suffered from coving at the wall bases from inadequate drainage. We reversed the negative grading so that water ran away from the building, installed area drains to carry it away from the site, and installed a geodrain to further ensure moisture was kept away from the adobe wall bases.



Zia Diner, Santa Fe, NM. Moisture permeating the north wall of this National Register Site had severely damaged the adobe wall, which was close to collapse. We installed a geodrain, repaired the adobe wall to grade, and installed a heating mat under the adjacent paved parking lot to prevent ice build up around the wall bases during winter. Our crews then replicated the historic pebble-dash finish, rendering the repair area seamless.



The Marfa Hotel, Marfa, TX. Insufficient drainage between two buildings built very closely together had resulted in water puddling and eroding the wall bases. We installed a geodrain with a slotted pipe running into a drywell, alleviating the further trapping of water.

Historic Plasters and Finishes

The most common original plasters found in historic buildings in the southwest include mud, lime and gauged (a combination of lime and gypsum) plasters. Mud and lime are highly vapor permeable and therefore the most effective in maintaining the structural integrity of earthen structures.

Crocker Ltd has extensive experience performing materials analysis on historic finishes; our crews are then able to replicate these plasters with an extremely high level of craftsmanship.

MUD PLASTER

Earthen interior plaster at a historic farmhouse in the Hondo Valley, New Mexico.



Tan mud, hard-troweled.



Tan mud with a textured finish.



White mud plaster, naturally occurring and applied unamended.

LIME PLASTER

Exterior and interior plaster at a historic farmhouse in New Mexico and at the Globe Theatre, London.



Exterior lime plaster.



Naturally pigmented gauging plaster.



Exterior lime plaster at the Globe Theatre reconstruction.

Selected Projects

Below is a partial list of projects involving the stabilization and restoration of historic structures performed in compliance with the Secretary of the Interior's Standards:

2011-2012. Santa Ana Mission at Tamayá Restoration, Pueblo of Santa Ana, NM. Complete restoration, including stabilization, drainage, archeological monitoring, and all wooden elements, of a late-17th century adobe mission church. Recipient of a 2013 *New Mexico Architectural Heritage Preservation Award*.

2010-2011. St. Augustine Church Restoration, Pueblo of Isleta, NM. Stabilization, partial reconstruction, archeological monitoring, and complete 100-year restoration, sub-floor to bell towers, of a massive adobe mission church built in 1612. Recipient of a 2012 *New Mexico Architectural Heritage Preservation Award* for "culturally sensitive and inspiring restoration."

2010. Painted Kiva Emergency Roof Replacement, Coronado State Monument, Bernalillo, NM. For New Mexico State Monuments. Emergency replacement of failed roof, including protecting historic painted murals; replacing five massive vigas; reconstruction of watertight earthen roof; and rebuilding adobe walls and timber ladder.

2009. Fort Stanton Administration/Museum Building Renovation, Fort Stanton, NM. For State of New Mexico. Complete restoration, in strict accordance with National Parks Historic Preservation Guidelines, of a historically significant building, built in 1855 and on the National Historic Register. Recipient of the 2010 *New Mexico Heritage Preservation Award for Architectural Heritage*.

2007-2009. Marsh Ranch, Watrous, NM. Stabilization, rehabilitation, and mechanical/plumbing upgrade of a complex of 22 historic brick and adobe buildings on a working ranch in northern New Mexico.

2008. Zia Diner, Santa Fe, NM. Stabilization of severely damaged adobe south wall bases; stabilization and reconstruction of historic façade; and replication of historic Portland-based pebble-dash plaster at a National Register site built in 1925.

2007-2008. Andy's La Fiesta, Ranchos de Taos, NM. Structural stabilization, moisture remediation, and restoration services for former dance hall/saloon, one of the original structures on the Ranchos de Taos Plaza.

2007. Pitchfork Ranch, near Meeteetse, WY. Prepare structural assessment and treatment strategy for stabilization and restoration of historic Otto Franc House. Perform phase one stabilization.

2006-2007. Gutiérrez Hubbell House, Albuquerque, NM. For Bernalillo County. Rehabilitation of 5,700 sq. ft., 150-year-old adobe hacienda, plus construction of a new restroom facility. Listed on the N.M. State Register of Cultural Properties and designated a Save America's Treasures project. Recipient of 2008 *New Mexico Heritage Preservation Award for Architectural Heritage*.

2006-2007. Costilla County Courthouse, San Luis, CO. For Colorado State Historic Fund. Exterior reconstruction and restoration and drainage design/installation of adobe and stone courthouse constructed in 1853.

2006-2007. Baca County Courthouse, Springfield, CO. For Colorado State Historic Fund. Roof renovation on historic Colorado courthouse.

2006. Doodlets Gift Shop, Santa Fe, NM. Underpin foundation, provide structural stabilization and adobe repair for multistory adobe hotel built in 1870. Provide archeological services when artifacts discovered during excavation.

2006. Private hacienda, Bernalillo, NM. Underpin foundation using adobe baskets and

helical piers, repair adobe walls and restore interior and exterior finishes for historic adobe complex.

2005. Hubbell Trading Post National Historic Site, Ganado, AZ. For National Park Service. Stabilization, archeological monitoring, and drainage system installation at historic stone hogan.

2005. Governor Dempsey House, Circle Drive, Santa Fe, NM. Structural stabilization and repair of adobe walls using adobe cages.

2005. The Marfa Hotel, Marfa, TX. Stabilization and restoration of historic two-story adobe.

2005. The Oppenheimer House, Los Alamos, NM. For Los Alamos Historical Society. Stabilization and repointing of home used by Dr. J. Robert Oppenheimer during the Manhattan Project.

2004. Palace of the Governors, Santa Fe, NM. For State of New Mexico. Stabilization and restoration of north adobe wall and stone footings; viga splice/repair; design and apply colored earthen plasters to highlight select features as an interpretive tool.

2004. Canyon Road residence, Santa Fe, NM. Replace/splice failed vigas, replace ceiling decking, and adobe wall repair of State Historic Register home dating to 1920s.

2004. Digneo Moore House, Santa Fe, NM. Exterior restoration of New Mexico State Historic Register property, including quoin reconstruction and repair.

2003-2004. The Christmas Morning Ranch, La Liendre, NM. Restoration of ledge stone chapel and outbuildings including re-chinking and repointing with mud mortar.

2003. Las Barrancas, Jacona, NM. Stabilization of early 20th century double-wythe structure on shallow rubble and mud foundation.

2002. Shakespeare's Globe Theatre, London, England. Specialty contractor for remedial treatment of lime plasters.

2002. Historic hacienda, Cedar Crest, NM. Structural underpinning and adobe wall repair of historic home dating back to 1920s.

2001. Seco Plaza Complex, Arroyo Seco, NM. Stabilization of historic two-story, single-wythe adobe structure on rubble foundation.

2000. Barclay Ranch, Cerrillos, NM. Stabilization and repointing of 19th or early 20th century stone ranch house.

2000. Los Luceros Hacienda, Alcade, NM. Specialty contractor and consultant for restoration of early 19th century adobe hacienda.

2000. 69 Ranch, Buena Vista, NM. Restoration of adobe barn, blacksmith shop, and outbuildings in ranch built in 1880.

1999-2000. J.J. Hagerman Estate, Carlsbad, NM. Restoration of historic property dating to 1890s. Included repointing of soft-fired brick masonry.

1998. Diamond A Ranch, Picacho, NM. Restoration and stabilization of 1850s farmhouse and conversion of wing of main house into guest wing.

The following projects further demonstrate Crocker Ltd's experience complying with strict preservation standards:

2000. Leaden Hall School, Cathedral Close, Salisbury, England. Underpin buildings at a Roman-era site. Crocker Ltd was the only contractor to submit a plan that complied with English Heritage specifications, which forbade the use of Portland cement or disturbance of the subsurface.

These consulting projects further demonstrate our expertise with historic preservation:

2012, 2005-2006. Rollings vs. City of Tucson, Tucson, AZ. Historic preservation expert witness for the City in the case of Rollings vs. City of Tucson.

2008. Fort Lowell, Tucson, AZ. For City of Tucson, AZ. Perform structural and materials assessment and treatment strategy for stabilization and restoration of 70-acre historic military facility. Recipient of a 2010 *AZASLA Professional Design Award* with Poster Frost Mirto and the rest of the Master Plan team.

2007-2008. Hutmacher Farm, near Kildeer, ND. For Preservation North Dakota. Using technologies derived in the ancient Hopi village of Oraibi in Arizona, designed and implemented an earthen roof over thatch solution for a stone and earthen farm house built by Ukrainian-German immigrants in 1926.

2007-2008. Gun Site, Los Alamos, NM. For Los Alamos National Lab. Prepare historic preservation assessment and recommendation report for Gun Site restoration project.

2007. El Vado Motel, Albuquerque, NM. For City of Albuquerque. Structural and historic preservation consultant with regard to this historic Route 66 motel.

2007. Fort Stanton, Lincoln County, NM. Consultant on historic building materials and construction methodology for an N.M. State Monument site.

2006. Canoa Ranch, Tucson, AZ. For Pima County, AZ. Prepare structural and materials assessment and treatment strategy for stabilization and restoration of numerous buildings at State of Arizona Registered Landmark (*ca.* 1860s).

2005-2006. V-Site of the Manhattan Project, Los Alamos, NM. For Los Alamos National Lab. On-site preservation consultant for stabilization, preservation and restoration of historic materials at the V-Site Assembly Building, one of the few remaining Manhattan Project buildings. Recipient of the 2007 *New Mexico Heritage Preservation Award for Architectural Heritage* and the 2008 *National Trust/Advisory Council on Historic Preservation Award for Federal Partnerships in Historic Preservation*.

2004-2005. San Cristóbal Mission, Santa Fe County, NM. Assess standing ledgestone remains of early 17th century mission church; provide outline strategy for treatment for compliance agencies and owner; document and stabilize using unamended or lime-amended mud mortars.

2004. CLM Farms, Dell City, TX. Assessment, HABS drawings, and outline strategy for restoration of Figure 2 ranch house built in the 1920s.

2002. Casa San Ysidro, Corrales, NM. For The Albuquerque Museum. Condition report, assessment, and outline strategy for treatment.

2001. Painted Kiva Assessment, Bernalillo, NM. For State of New Mexico Office of Cultural Affairs. Condition report, assessment, and outline strategy for treatment of the *ca.* 1300 Painted Kiva at Coronado State Monument.

2000-2001. New Mexico Historic Resource Manual and Survey Forms. For State of New Mexico Historic Preservation Division. Consultant/contractor for development and publishing.

1999-2001. Shrine of Our Lady of Lourdes, Santa Fe, NM. For State of New Mexico Historic Preservation Division. Historic structure report and nomination as a National Historic Landmark.

1999. San Estebal del Rey Church and Convent, Acoma, NM. For the Pueblo of Acoma, Cornerstones Community Partnerships, and the Andy Warhol Foundation for the Visual Arts. Consultant for assessment of *ca.* 1629 church and convent.

Selected Projects - Wall Repair



Diamond A Ranch, Hondo, New Mexico

Part of the ranch complex included an 1850s farmhouse on rubble footings. Once the footings were stabilized, the damaged walls were repaired and mud plastered.



Nathaniel Owings' Estate, Jacona, New Mexico

Years of deferred maintenance and poor drainage had left the adobe walls in very poor condition. After repairing the walls, the parapets were capped with copper and a redundant drainage system was installed at the wall base to save the walls from future moisture intrusion.



69 Ranch, Buena Vista, New Mexico

Broken flashing, groundwater and the buildup of debris next to the buildings led to partial collapse of the walls. After stabilization, the walls were restored, vigas spliced and a new roof applied.

Selected Projects - Wall Repair



Nuestra Señora de los Dolores, Arroyo Hondo, New Mexico

Concrete grade beams and cement plaster led to severe deterioration of the adobe, particularly at the wall base. Once the concrete was removed, the walls were repaired and the building mud plastered.



San José Mission, Upper Rociada, New Mexico

Poor drainage and a buildup of debris caused moisture infiltration and the collapse of the wall. The wall had to be demolished and was rebuilt using adobe and wooden tie beams.



Gutiérrez-Hubbell House, Bernalillo County, New Mexico

This complete restoration included the reconstruction of several adobe walls and wall bases. The project, completed on time and on budget, earned Crocker Ltd the highest contractor rating possible from the owner, Bernalillo County.

Selected Projects - Roof Repair



San Rafael Church, La Cueva, New Mexico

The historic cedar shingle roof on the church was stripped, the old wooden purlins repaired/replaced and new shingles applied.



Andy's La Fiesta, Ranchos de Taos, New Mexico

An existing pitched tin roof over 50 years old had failed. Before re-decking, insulating and re-roofing, stabilization of the site-built trusses was required.



Gutiérrez-Hubbell House, Bernalillo County, New Mexico

The old earthen roof, covered over the years by several layers of asphalt roofing, had retained considerable amounts of moisture. The roof was stripped, a pocket roof was framed in, insulated, decked and re-roofed.

Selected Projects - Window Repair



San Rafael Church, La Cueva, New Mexico

The building had been abandoned and vandalized for nearly thirty years. The full restoration included restoring the intricate gothic windows.



Gutiérrez-Hubbell House, Bernalillo County, New Mexico

This complete restoration of an important building in Albuquerque's South Valley included the rehabilitation of all existing windows and doors.



69 Ranch, Buena Vista, New Mexico

The window sashes were deteriorated beyond repair before the restoration of this historic adobe barn and blacksmith shop. Our approach was to replicate the woodwork, install restoration glass and use the old weights and hardware in the new units.

Techniques: Viga Repair



Nuestra Señora de Guadalupe Zuni, New Mexico

Exposed viga tails that had been installed during a 1970 reconstruction had lost their structural value. They were repaired in situ using fiberglass rods and epoxy.



Rotted viga ends were discovered.



Viga end was removed.



Viga was prepared for splice.



Fiberglass nut was epoxied into place.



A threaded fiberglass rod was installed in the new tail.



New viga ends were screwed into place.

Techniques: Viga Repair



San Acacio de las Golondrinas Golondrinas, New Mexico

Roof leaks and a thick build-up of pigeon droppings in the attic led to the deterioration of the tops of the vigas. They were repaired in situ using fiberglass rods and epoxy.



All rot was removed with vigas shored and in place.



A new tail was matched.



Fiberglass rods were epoxied in place in the new tail.



The new tail was joined and the seam sealed with bentonite.



Finally, epoxy was cast into the void.

Techniques: Wall Stabilization



Los Luceros, Alcalde, New Mexico
Unstable walls at this early 19th century adobe hacienda required specialized approaches to stabilization.



The cement plaster was stripped, revealing degraded walls.



A lightweight, lime-based grout was pumped into voids.



The process was monitored to ensure that no displacement occurred.



Unstable sections were tied together using polyester strapping.

